UNITED STATES DISTRICT COURT

FOR THE SOUTHERN DISTRICT OF NEW YORK

IN RE: KIND LLC "HEALTHY AND ALL NATURAL" LITIGATION	15-MD-2645 (WHP) 15-MC-2645 (WHP)
This Document Relates to: ALL ACTIONS	Hon. William H. Pauley III, presiding

DECLARATION OF STEPHEN F. HAMILTON, Ph.D. IN SUPPORT OF PLAINTIFFS' MOTION FOR CLASS CERTIFICATION

TABLE OF CONTENTS

I.   QUALIFICATIONS

1.   I am Professor and Director of Graduate Studies in the Department of Economics at California Polytechnic State University, San Luis Obispo ("Cal Poly"). I received a Ph.D. in Agricultural and Resource Economics from the University of California, Berkeley in 1996. I have held teaching positions at Kansas State University, the University of Arizona, the University of Central Florida, Toulouse School of Economics, and Cal Poly. I was selected as Chair of the Department of Economics at Cal Poly in 2005 and served in that capacity over the period 2005-2017.

2.   I have published extensively in academic and professional journals on the application of statistical methods, industrial organization, wholesale and retail market pricing, international trade, environmental and resource economics, and public policy. During my academic career, I have served on panels of the U.S. Department of the Interior Science Advisory Board, and have been awarded grants for research by the U.S. Department of Agriculture and private foundations. I have secured over $3 million in Federal grants to fund my research. I have published over 50 articles, proceedings and book chapters and have won numerous awards for my teaching and scholarship.

3.   I have been recognized internationally for my research and consulting related to retail market practices, consumer products, environmental and land use regulation, energy and water markets, and antitrust issues. My academic and professional honors include receiving the Atlas Award for Research with Social Impact, the Early Career Award for Outstanding Faculty Research, selection as a Research Fellow in the Rural Development Research Consortium, and member of the Sustainable Management Panel for the Tallgrass Prairie National Preserve. I have provided plenary and keynote addresses at international research conferences, presented

scholarly work at over 30 national and international conferences, and delivered invited seminars at over 20 different universities.

4.   My published research in retail markets includes more than a dozen peer reviewed articles in which I have conducted econometric analyses of consumer demand using models that measure the effect of individual product attributes on prices using retail scanner data. These studies are part of a broader academic research program that is focused on consumer purchasing behavior and retail pricing outcomes in categories with extensive product differentiation, such as yogurt, breakfast cereal, soft drinks, ice cream, snacks, beer, and personal care products. I have extensive experience utilizing retail point of sale (POS) and household panel data to examine the role of product attributes in determining consumer demand and market prices for individual products in highly differentiated product categories.

5.   In my published academic work, I have also analyzed economic incentives for firms to engage in fraudulent labeling of conventional products as "green" products (e.g., "environmentally friendly," "natural," and "organic"). I have estimated consumer willingness to pay premiums for "organic" attributes in food products using consumer survey data.

6.   In addition to my work in academia, I have over twenty years of consulting experience. My consulting engagements have included measurement of economic damages in complex litigation, including consumer product cases involving deceptive pricing allegations, as well as comparative price advertising. I have provided expert reports in over 20 class action cases involving consumer damages for misleading product representations, including testimony on economic damages for consumer fraud and false advertising allegations within various retail industries (e.g., food, vitamins, coffee, apparel, and personal care products, among others). As part of my consulting work, I have used hedonic regression models to measure consumer

2

overcharge for mislabeled "organic" and "natural" product attributes. My consulting

engagements have also included market analysis of regulated industries, economic feasibility

studies, environmental and land use regulation, groundwater basin management, and portfolio

investment modeling.

7.   A more detailed list of my qualifications, experience, professional activities, and

publications may be found in my curriculum vitae, attached as Exhibit A. A true and correct list

of my testimony over the last four years is attached as Exhibit B.

II.   SCOPE OF ANALYSIS

8.   I understand that this case involves the labeling of certain products under the KIND

brand, including KIND Bars and Clusters, among other products (the "Products").[1] From April

17, 2011 through the present (the "Proposed Class Period"), Plaintiffs allege that the Products

were falsely and misleadingly labeled as "All Natural / Non-GMO," "Non-GMO," or "No

Genetically Engineered Ingredients" (the "Challenged Claims") when these Products contained

synthetic ingredients, chemically synthesized ingredients, highly processed ingredients and

ingredients derived from genetically modified organisms ("GMOs").[2] Plaintiffs allege that, due

to the presence of the Challenged Claims on the Products' labels, consumers paid more for every

unit of the Products than they would have in the absence of those claims (i.e., a "Price

Premium").[3]

9.   I understand that Plaintiffs seek to enjoin KIND's allegedly deceptive marketing

and labeling practices going forward, while recovering economic damages for class members

during the Proposed Class Period.[4] I understand that the proposed classes include all persons

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[1] Operative Complaint, filed October 31, 2016, at p. 1, ¶1.
[2] Operative Complaint, filed October 31, 2016, at p.2, ¶2 and at p. 11, ¶32-34.
[3] Operative Complaint, filed October 31, 2016, at pp.27-28, ¶59.
[4] Operative Complaint, filed October 31, 2016, at p. 30, ¶72.

3

who purchased the Products during the Proposed Class Period in New York (the "New York Class"), California (the "California Class"), and Florida (the "Florida Class"). Collectively, these Classes are referred to as the "Class" in this report.

10.   I understand that the Court, in deciding whether to certify this case as a class action, will evaluate whether the damages allegedly suffered by Class members can be determined using evidence common to the Class. As an economist, I have been retained by Plaintiffs' counsel to analyze the issues of (1) whether, during the Class Period, consumers paid more for the Products than they would have had the Products not been labeled with the Challenged Claims, and (2) in the event they did pay more, the magnitude of the Price Premium they paid. I have also been asked whether other restitutionary measures of damages can be determined on a class-wide basis in the event the Court determines that a measure other than Price Premium is appropriate in this case.

11.   I am not a food scientist and offer no opinion on whether the challenged labeling on the Products is false or misleading. For the purposes of this Declaration, I accept Plaintiffs' theory of liability that the Products' labeling was false and misleading because the Products contained non-natural and GMO ingredients.

12.   To support my analysis, I have analyzed data and documents produced during discovery. I also reviewed academic research and government reports on various topics, including market prices and consumers' demand for all natural and non-GMO products. A list of the materials that I reviewed or relied upon in the course of my work is attached hereto as Exhibit C.

13.   I have not collaborated with staff at economic consulting firms in forming my opinions in this Declaration, and my compensation does not depend on the substance of my

opinions or the outcome of the litigation. The rate charged for my time spent on this matter is

$500 per hour.

III.   SUMMARY OF PRINCIPAL CONCLUSIONS

14.   It is my opinion that, if Plaintiffs establish that the challenged labeling is unfair,

false, deceptive and/or misleading, **it is possible to calculate, on a class-wide basis, the**

damages attributable to the presence of the Challenged Claims on every unit of the

Products.

15.   I have analyzed the market for natural and GMO-free products and concluded that

"All Natural" and "non-GMO" labeling (including the "No Genetically Engineered Ingredients"

label) increases consumer demand and market prices for food products with such labeling.

Economic studies systematically confirm that consumers pay higher prices for products labeled

as "All Natural" and "non-GMO" than they otherwise would pay for similar products without

these representations.

16.   The existence of higher prices in general for products labeled as natural and non-

GMO provides support for the proposition that the proposed Class members paid a Price

Premium due to the mislabeling of the Products as "All Natural" or "non-GMO." Valid and

accurate methodology exists in the economics literature to ascertain whether the proposed Class

members paid a Price Premium and to reliably measure the extent of the Price Premium they

paid.

17.   If analysis shows that a Price Premium did exist on the Products due to the presence

of the "All Natural" and "non-GMO" claims, then all Class members suffered a common impact,

regardless of their motivations for purchasing the Products. The Price Premium on the Products,

which can be reliably measured in this case, represents common impact, because, absent the

misleading labeling of Products, all consumers would have paid a lower market price for the

Products.

18.   Regarding measures of restitutionary damages other than Price Premium, there are

at least three relevant metrics readily available from ordinary financial statements, including "net

sales revenue," "gross profit," and "net profit before tax." The "net sales revenue" metric, which

involves full disgorgement of net sales revenue of the Products, is consistent with the notion that

KIND should not be able to retain any sales revenues received from selling falsely-labeled

Products, while the "gross profit" and "net profit before tax" metrics involve disgorgement of

profits after adjusting net sales to account for production costs.

19.   To quantify the Price Premium consumers paid as a result of the Challenged

Claims, I would use a common methodology relied on by economists called "hedonic regression

analysis." Hedonic regression analysis is a technique used widely by economists to measure the

value of product attributes, such as natural or non-GMO attributes, using actual historical retail

price data, while controlling for other variables that also influence a product's value such as

brand, package size, retail format, geographic location of purchase, and trends in the product

category over time.[5]

20.   Regression analysis identifies and quantifies the relationship between two or more

variables, seeking to identify the variation in a so-called "dependent" variable (such as the price

of a snack bar) due to that variable's relationship with one or more "independent" or

"explanatory" variables (such as whether or not a snack bar is labeled "All Natural" or "non-

GMO"). Regression analysis can confirm that use of the "All Natural" or "non-GMO"

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[5] For a survey of the literature analyzing price premiums for all natural and non-GMO food labeling, see Lusk, J.L.,
Jamal, M., Kurlander, L., Roucan, M. and Taulman, L., 2005. A meta-analysis of genetically modified food
valuation studies. *Journal of Agricultural and Resource Economics*, pp.28-44; and Bonanno, A., 2016. A hedonic
valuation of health and non-health attributes in the US yogurt market. *Agribusiness*, 32(3), pp.299-313.

representation on the product label increases the market price of a snack bar, and if so, the magnitude of the Price Premium. Regression analysis controls for other factors influencing prices that are measured in the data (e.g., flavor, brand, package type, retail chain, and location of purchase) and captures the effects of unmeasured variables through the residual or "disturbance" term.

21.   Another common and well-established methodology that could be used to value the Price Premium in this case is "conjoint analysis." Conjoint analysis is a representative survey technique that analyzes consumer responses directly—as opposed to analyzing historical retail prices and the role of product attributes in determining retail prices—to determine consumers' willingness-to-pay for a particular representation made on a product label (e.g., "All Natural" or "non-GMO"). Like hedonic regression analysis, conjoint analysis is founded on rigorous statistical and economic principles.

22.   The use of either hedonic regression or conjoint analysis results in a valid and reliable measure to quantify the Price Premium consumers paid for the Products in excess of the amount they would have paid for the products absent these labeling claims. Class-wide damages can be quantified as the product of the overcharge (i.e., the additional value attributed to the labeling claim) and the quantity of the Products sold.

23.   The factual foundation, analytical methods and techniques for arriving at these conclusions are set forth in the following sections of this Declaration.

IV.   **CONSUMERS ARE WILLING TO PAY, AND DO PAY, A PRICE PREMIUM FOR "ALL NATURAL" AND "NON-GMO" PRODUCTS.**

24.   The existence of a Price Premium for "All Natural" and "non-GMO" products provides evidence that the proposed Class members likely paid a Price Premium due to the

7

presence of the Challenged Claims on the Products. It also demonstrates that KIND had an

economic inventive to mislabel the Products as "All Natural" and "non-GMO."[6]

26. There is an abundance of academic literature and government reports establishing

that consumers are motivated to buy natural and non-GMO products and that consumers rely on

the accuracy of product labeling to make purchase decisions. As a result, the economic impact

from mislabeled products is common across members of the proposed Class, regardless of

individual motivations to purchase the Products.

A. Consumers are motivated to buy products that are "All Natural" and "non-GMO."

26. I understand that Plaintiffs allege that the proposed Class paid more for KIND's

Products than they would have if those Products had not been labeled as "All Natural" and "non-

GMO."[7]

27. This proposition is supported by substantial industry, academic, and government

literature that indicates consumers are driven to purchase "All Natural" and "non-GMO" food

products. Indeed, robust consumer demand for products in the natural food category has led to

substantially sales growth over the last several decades. Nielsen reports that foods labeled as

"natural" generated $23 billion in sales in 2008, growing 37% over the period 2004 to 2008.[8] By

the year 2018, the natural food industry encompassed $158 billion in total sales according to

Natural Foods Merchandiser, a leading information provider for the natural, organic, and health

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[6] As previously noted in Section II of this Declaration, I explicitly do not offer an opinion on whether the alleged
products are, in fact, mislabeled. However, in analyzing whether or not a methodology exists to calculate the forms
of damages alleged in this case, the remainder of this Declaration proceeds as if these products are mislabeled.

[7] Operative Complaint, filed October 31, 2016, at pp.27-28, ¶59.

[8] Nielsen Company. "'Natural' Beats 'Organic' in Food Sales According to Nielsen's Healthy Eating Report." Press
release, January 21, 2009, accessed November 25, 2019 at
http://www.nielsen.com/us/en/insights/news/2009/natural-beats-organic-in-food-sales-according-to-nielsens-
healthy-eating-report.html.

food industry in the U.S.[9] Within the natural foods industry, sales in the snack foods category

totaled $3.4 billion in 2018, growing 6% from 2017.[10]

28.   According to consumer research from NPD Group, 35% of all in-home eating

occasions now include at least one item that is marketed as all natural, making it the single

largest food label in terms of consumption.[11] This trend is largely expected to continue, with

market researchers projecting that sales in "natural, organic, and healthy products" will grow

from $153 billion in 2013 to $252 billion by 2019.[12]

29.   Documents obtained by Plaintiffs from KIND confirm that consumers are willing

to pay more for, and are motivated to purchase, foods labeled "All Natural" and "non-GMO."

These documents provide additional support for the proposition that consumers paid a Price

Premium for the Products due to the Challenged Claims.[13]

B. Consumers rely on the accuracy of natural product labeling to make purchasing decisions.

30.   Companies communicate information about their products through advertising and

labeling. Advertising through mass media and specialized media can capture consumer attention,

explain product usage, and highlight its advantages, while labeling provides specific information

about the contents, ingredients, health and safety features, preparation, and storage of a

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[9] *Natural Foods Merchandizer*, accessed November 25, 2019, at https://www.newhope.com/market-data-and-analysis/2019-market-overview-index-charts-and-analysis.

[10] *Natural Foods Merchandizer*, accessed November 25, 2019, at https://www.newhope.com/market-data-and-analysis/2019-market-overview-index-charts-and-analysis.

[11] Hamstra, M., How conventional groceries are chasing today's natural consumer, *Natural Foods Merchandiser*, July 22, 2019, accessed November 25, 2019 at https://www.newhope.com/market-data-and-analysis/how-conventional-groceries-are-chasing-todays-natural-consumer.

[12] New Hope Natural Media. "NEXT: Natural Products Industry Forecast 2016 Finds Trust Through Transparency is Driving Change Across the Natural Products Ecosystem." Press release, Oct 14, 2015, accessed November 25, 2019 at http://www.prnewswire.com/news-releases/next-natural-products-industry-forecast-2016-finds-trust-through-transparency-is-driving-change-across-the-natural-products-ecosystem-300159166.html.

[13] Exhibit C, Bates Numbered Documents.

product.[14] For many products, including products labeled as all natural and non-GMO,

consumers cannot perceive the accuracy of a product's claim at the point of sale, because the

attributes advertised in the claim do not substantially affect the appearance of the products. For

example, a snack bar labeled as "All Natural / non-GMO" may be identical in appearance to a

snack bar that does not make such a labeling claim. For this reason, consumers rely on

companies to make accurate representations of natural and non-GMO attributes contained in

products on their labels.

31.   Labeling allows consumers to make informed purchasing decisions through careful

review of statements made on product labels.[15] KIND competitively positions itself as a natural

products company, and it is reasonable to expect that including statements like "All Natural" and

"non-GMO" on its product labels allows KIND to receive price premiums from consumers in the

marketplace.

32.   In the United States, the Federal Trade Commission monitors truth in advertising,

such as those that market products with natural claims, to protect consumers. Truth-in-

advertising rules state that advertising "must be truthful and non-deceptive," "must have

evidence to back up their claims," and "cannot be unfair."[16] Advertisements identified as

deceptive contain a statement or omit information that "[i]s likely to mislead consumers acting

reasonably under the circumstances" and "is important to a consumer's decision to buy or use the

product."[17]

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[14] Gardner, Sherwin. "Consumers and food safety: A food industry perspective." In *Food, Nutrition and Agriculture—8/9—Consumer participation in food control.* Food and Agriculture Organization of the United Nations, 1993, accessed November 25, 2019 at http://www.fao.org/docrep/v2890t/v2890t05.htm.
[15] Gardner, Sherwin. Supra note 14.
[16] Federal Trade Commission. "Advertising FAQ's: A Guide for Small Business." April 2001, accessed November 25, 2019 at https://www.ftc.gov/tips-advice/business-center/guidance/advertising-faqs-guide-small-business.
[17] Federal Trade Commission. "Advertising FAQ's: A Guide for Small Business." April 2001, accessed July 6, 2016 at https://www.ftc.gov/tips-advice/business-center/guidance/advertising-faqs-guide-small-business.

33.   The US Food and Drug Administration ("FDA") has not engaged in rulemaking

to establish a formal definition for the term "natural" or "All Natural." The FDA, however, has

established a policy defining boundaries for the use of the term "natural" by clarifying that a

natural product "means nothing artificial or synthetic (including all color additives regardless of

source) has been included in, or has been added to, a food that would not normally be expected

to be in that food."[18]

C. There is an abundance of academic literature and government reports that acknowledge and measure Price Premiums for "all natural" and "non-GMO" products.

34.   There is substantial evidence from academic, government, and industry sources that

consumers are willing to pay a Price Premium, and indeed do pay a Price Premium, in the market

for food products labeled as "All Natural" and "non-GMO." The existence of a Price Premium in

the marketplace for similarly situated food products is especially relevant to this litigation,

because it suggests that the proposed Class was also likely to have paid a Price Premium due to

the presence of the Challenged Claims.

35.   In terms of the "non-GMO" claim, Lusk, et al. (2005) identifies 25 separate

studies that together provide 57 estimates of consumers' willingness-to-pay for GMO food

products.[19] Among these 25 studies, the average reported price premium for food products

labeled as non-GMO was 42% relative to products that did not make this representation on the

label.

36.   Numerous studies confirm that non-GMO foods command a significant market

Price Premium in the consumer market. Onyango, Nayga and Govindasamy (2006) find that

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[18] Food and Drug Administration, Use of the term natural on food labeling, 2016, accessed on November 25, 2019 at https://www.fda.gov/food/food-labeling-nutrition/use-term-natural-food-labeling.

[19] Lusk, J.L., Jamal, M., Kurlander, L., Roucan, M. and Taulman, L., 2005. A meta-analysis of genetically modified food valuation studies. *Journal of Agricultural and Resource Economics*, pp.28-44.

consumers are willing to pay a 10% premium on food labeled as non-GMO, [20] and Bukenya and

Wright (2007) and Huffman (2010) find that US consumers are willing to pay premiums ranging

from 14% to 21% for food certified to be GMO-free.[21]

37.   This finding that consumers are willingness to pay substantial Price Premiums for

non-GMO food is corroborated by economic studies that examine market outcomes for

processed food products making non-GMO claims at the point of sale (POS). For example,

Adalja (2018) examines market demand effects from organic and non-GMO product labels using

Nielsen retail scanner data in the US ready to eat breakfast cereal market and finds that the non-

GMO label has a similar impact as the organic label on increasing market demand.[22]

38.   In terms of the "All Natural" claim, there is considerable evidence that consumers

are willing to pay substantial Price Premiums in the market for natural food.[23] In a recent study,

McFadden and Huffman (2017) find consumers are willing to pay a 13-16% Price Premium for

food labels describing the product as "natural."[24] For the case of "natural" beef, Lusk and Fox

(2002) found consumers are willing to pay 17% and 10% more, respectively, for beef labeled as

coming from animals not administered growth hormones, or not fed genetically modified corn.[25]

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[20] Onyango, B., Nayga, R.M. and Govindasamy, R., 2006. US Consumers' Willingness to Pay for Food Labeled 'Genetically Modified'. *Agricultural and Resource Economics Review*, 35(2), pp.299-310.

[21] Bukenya, J.O. and Wright, N.R., 2007. Determinants of consumer attitudes and purchase intentions with regard to genetically modified tomatoes. *Agribusiness: An International Journal*, 23(1), pp.117-130; Huffman, W.E. 2010. Consumer acceptance of genetically modified foods: Traits, labels and diverse information (Staff General Research Papers). Ames: Iowa State University, Department of Economics (10029).

[22] Adalja, A.A., 2018. The Impact of Voluntary Non-GMO Labeling on Demand in the Ready-to-Eat Cereal Industry. In 2018 Annual Meeting, August 5-7, Washington, DC (No. 273817). *Agricultural and Applied Economics Association*.

[23] Cole, G. 2014. "Natural" labeling and consumers' sentimental pastoral notion, *Journal of Product & Brand Management*, Vol. 23 No. 4/5. https://doi.org/10.1108; Moscato, E.M. and Machin, J.E., 2018. Mother natural: motivations and associations for consuming natural foods. *Appetite*, 121, pp.18-28.

[24] McFadden, J.R. and Huffman, W.E., 2017. Willingness-to-pay for natural, organic, and conventional foods: The effects of information and meaningful labels. *Food Policy*, 68, pp.214-232.

[25] Lusk, J.L. and Fox, J.A., 2002. Consumer demand for mandatory labeling of beef from cattle administered growth hormones or fed genetically modified corn. *Journal of Agricultural and Applied Economics*, 34(1), pp.27-38.

39.   Economic studies have also controlled for multi-attribute labeling of products that jointly make the representations of "organic" and "natural." For example, Anstine (2007) finds substantial market price premiums for yogurt labeled "all natural and organic" and demonstrates there is no statistically significant difference between consumers' willingness to pay for yogurt that is all natural relative to yogurt that is organic.[26]

40.   This finding that consumers are willingness to pay substantial Price Premiums for natural food is corroborated by economic studies that have reliably measured substantial Price Premiums in market data at the point of sale (POS). Using hedonic regression analysis, Bonanno (2016) finds a 35% market price premium for yogurt products making the natural claim in the US market.[27]

41.   The evidence I have reviewed from the economics literature suggests that the market Price Premium for "All Natural" and "non-GMO" food is similar in magnitude to the price premium consumers are willing to pay for organic food products.[28] This is important, because an extensive economic literature has found substantial market price premiums for organic attributes in food products that may be similar in magnitude to the Price Premium paid for the Products in this litigation. Examples of peer reviewed studies that have examined the Price Premium on the organic attribute on food products include:

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[26] Anstine, J., 2007. Organic and all natural: Do consumers know the difference? *Journal of Applied Economics & Policy*, 26(1), pp. 15-27.

[27] Bonanno, A., 2016. A hedonic valuation of health and nonhealth attributes in the US yogurt market. *Agribusiness*, 32(3), pp.299-313.

[28] Anstine, J., 2007. Organic and all natural: Do consumers know the difference? *Journal of Applied Economics & Policy*, 26(1), pp. 15-27; Adalja, A.A., 2018. The Impact of Voluntary Non-GMO Labeling on Demand in the Ready-to-Eat Cereal Industry. In 2018 Annual Meeting, August 5-7, Washington, DC (No. 273817). *Agricultural and Applied Economics Association*.

- Green, et al. (2009): Using Nielsen Homescan data on actual consumer food purchases in 2005, Green et al. (2009) compared organic and conventional prices for 18 fruits and 19 vegetables and found an organic price premium for all products in their sample.[29]

- Lin, et al. (2008): Using the same dataset as Green, et al., Lin, et al. compared organic and conventional prices for 5 fruits and 5 vegetables. Their analysis found substantial organic price premiums for all 10 products, with estimates that were statistically significantly at the 99% confidence level.[30]

- Smith, et al. (2009): Using Nielsen Homescan data on consumer food purchases in 2006, Smith, et al. found organic price premiums for milk ranging from 60% to 109% over conventional prices, with price premiums statistically significant at the 99% confidence level.[31]

- Greene and Calvin (1996): Greene and Calvin found organic price premiums for salad mix (14% above conventional) and carrots (110% above conventional).[32]

- Sok and Glaser (2001): Sok and Glaser found organic price premiums for salad mix (10% above conventional) and carrots (125% above conventional), and broccoli (130% above conventional).[33]

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[29] Greene, C., Dimitri, C., Lin, B.-H., McBride, W., Oberholtzer, L., and Smith, T., "Emerging issues in the U.S. Organic Industry," *Economic Research Service/USDA* EIB 55 (2009), p. 18.

[30] Lin, B.-H., Smith, T.A., and Huang, C.L., "Organic premiums of fresh produce," *Renewable Agriculture and Food Systems* 23.3 (2008), p. 214.

[31] Smith, T.A., Huang, C.L., and Lin, B.-H., "Estimating organic premiums in the US fluid milk market," *Renewable Agriculture and Food Systems* 24.3 (2009), p. 203.

[32] Greene, C. and Calvin, L., "'Organically grown' vegetables: U.S. acreage and markets expand during the 1990s," *USDA Economic Research Service Vegetables and Specialties Situation and Outlook, Special Article* VGS-271, (1997) p 27-28.

[33] Sok, E., and Glaser, L., "Tracking wholesale prices for organic produce," *USDA, Economic Research Service Agricultural Outlook* (2001), p. 7-8.

- Oberholtzer, et al. (2004): Oberholtzer found organic price premiums for salad mix (7% above conventional) and carrots (148% above conventional), and broccoli (153% above conventional).[34]

- Thompson and Kidwell (1998): Thompson and Kidwell reported that organic products in general are sold at a statistically significant price premium ranging from 40% to 175% above the price of conventional products.[35]

- Maguire, et al. (2004): Maguire, et al. found a statistically significant premium for organic baby food of 16%–27% over the conventional price.[36]

42.   The vast economic literature estimating substantial market price premiums for natural, non-GMO, and organic food indicates that it is highly likely that consumers paid a Price Premium due to the Challenged Claims on the Products. To the extent that such a Price Premium exists, it absolutely can be quantified using conventional retail scanner data I expect to receive in the course of this litigation.

V.   THERE ARE MULTIPLE METHODOLOGIES AVAILABLE TO CALCULATE CLASS-WIDE DAMAGES IN THIS CASE.

43.   I understand that the court will assess whether a reliable methodology exists that can be used to calculate damages on a Class-wide basis. In my opinion, there are two feasible and accurate methodologies available to calculate the Price Premium due to the Challenged Claims: hedonic regression analysis and conjoint analysis. and I understand that appropriate data exist and will be available to Plaintiffs to do so. As detailed in this section, there are proven

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[34] Oberholtzer, L., Dimitri, C., and Greene, C., "Price premiums hold on as U.S. organic produce market expands," *Economic Research Service/USDA* VGS-308-01 (2005), p. 14.
[35] Thompson, G.D. and Kidwell. J., "Explaining the choice of organic produce: Cosmetic defects, prices, and consumer preferences," *American Journal of Agricultural Economics* 80 (1998), p. 279.
[36] Maguire, K.B., Owens. N., and Simon, N.B., "The price premium for organic baby food: A hedonic analysis," *Journal of Agricultural and Resource Economics* 29 (2004), p. 147.

methodologies to calculate the Price Premium paid by consumers due specifically to the "All Natural," "non-GMO," and "No Genetically Engineered Ingredients" claims.[37] The methodology to calculate the Price Premium will proceed as described below.[38]

44.   Before determining the Price Premium on the Products, I will estimate the total retail sales of the Products, in dollars and units, using reported data from KIND or from third parties such as Nielsen and IRI, which collect point-of-sale data from retail outlets. The data is reported in a format that will allow me to obtain retail sales for the Proposed Class Period and, if necessary, separate retail sales totals for individual regions such as California, Florida and New York. Records maintained by KIND would also reflect the number of units shipped for retail sale by time period and geographic region.

A. *There is a valid and accurate methodology to calculate the Price Premium resulting from the Challenged Claims on the Products.*

45.   The Price Premium consumers paid in the market for the "All Natural," "non-GMO," or "No Genetically Engineered Ingredients" claims on the Products provides a reliable metric for measuring class-wide damages. The reason is that, while consumers purchase products labeled as "All Natural" or "non-GMO" for a variety of different reasons, the specific reason why each customer purchased a Product is irrelevant to the measurement of overall damages, because a properly-labeled product would have been less expensive to *all* consumers. Thus, if a Price Premium is shown to exist due to the Challenged Claims on the Products, every Class member suffered common harm even if some Class members chose to purchase the Products based upon considerations unrelated to the Challenged Claims. Because the presence of the "All

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[37] Should the Court decide that a measure of damages other than Price Premium is appropriate in this case, there are alternative methodologies available to measure KIND's sales and/or profits derived from the Products.

[38] Note that some of these steps may be unnecessary or revised based on the nature of the sales data received. However, any alteration will still ensure that damages are applied only to the Products sold in the correct geographic regions during the Proposed Class Period.

16

Natural" or "non-GMO" representation on products results in a Price Premium paid by all consumers, this approach to measuring economic damages requires neither individualized analyses nor Class-member-specific inquiry.

46.   There are two valid and accurate methods that can be used to calculate the Price Premium paid by the proposed Class members attributable to each of the Challenged Claims on the Products, while controlling for other product attributes that may also influence consumer prices. The first method is "hedonic regression analysis," which relies on historical point-of-sale ("POS") data reporting the actual prices paid for KIND's products and competitors' products to determine whether there is the Price Premium for Products containing the Challenged Claims and to calculate the Price Premium is there is one. The second method is "conjoint analysis," which identifies consumers' willingness-to-pay for the "All Natural and/or non-GMO" representation on products through carefully controlled experiments.

47.   Once the Price Premium has been identified using one or more of these methods, class-wide damages can be measured by multiplying the calculated Price Premium by the number of units of the Products sold, as discussed above.

   1. *Hedonic regression analysis can be used to measure the value of "All Natural" and "non-GMO" attributes in products.*

48.   The Price Premium for the "All Natural" and "non-GMO" claims on the Products can be measured using hedonic regression analysis, a statistical technique frequently applied by economists in the academic literature to estimate the value associated with claims on product

labels,[39] and widely accepted by courts for the reliable measurement of class-wide damages.[40]

Indeed, the two seminal papers establishing the use of the hedonic pricing methodology for

multi-attribute products[41] and for differentiated products[42] collectively have been cited over

25,000 times by studies in the economics literature.[43]

49.   The hedonic regression model enables economists to calculate the relationship

between a dependent variable (e.g., sales price) and multiple independent variables (e.g., brand,

product subcategory, place of purchase, time trends, and the natural and non-GMO

representations on the product label). A regression model identifies the magnitude of the effect

for each independent variable, determines whether the effect is statistically significant (i.e., not

due to random variation in the data), and measures how well the model predicts the outcomes

(i.e., the "coefficient of determination" or "R-Squared"). Thus, a regression framework can

simultaneously measure the Price Premium associated with the "All Natural" and "non-GMO"

representations, while providing diagnostics to measure the overall predictive capabilities and

"goodness of fit" of the model.

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[39] Examples of hedonic studies estimating the price premium for the organic attribute in food include Lin, B.H., Smith, T.A. and Huang, C.L., 2008. Organic premiums of US fresh produce. *Renewable Agriculture and Food Systems,* 23(3), pp.208-216; Maguire, K.B., Owens, N. and Simon, N.B., 2004. The price premium for organic baby food: a hedonic analysis. *Journal of Agricultural and Resource Economics*, pp.132-149; Smith, T.A., Huang, C.L. and Lin, B.H., 2009. Estimating organic premiums in the US fluid milk market. *Renewable agriculture and food systems*, 24(3), pp.197-204. Examples of hedonic studies estimating the price premium for the all natural attribute include Anstine, Jeffrey. 2007. Organic and All Natural: Do Consumers Known the Difference? *Journal of Applied Economics & Policy* 26(1), pp. 15-27; and Bonanno, A., 2016. A hedonic valuation of health and nonhealth attributes in the US yogurt market. *Agribusiness*, 32(3), pp.299-313.
[40] I have measured consumer damages from false labeling claims using the hedonic regression approach in *Brown v. Hain Celestial Group, Inc.,* 2014 WL 6483216, at *19 (N.D. Cal. Nov. 18, 2014).
[41] Lancaster, Kelvin. "A New Approach to Consumer Theory," *The Journal of Political Economy* 74, no. 2 (1966): 132-157.
[42] Rosen, Sherwin. "Hedonic Prices and Implicit Markets: Product Differentiation in Pure Competition," *Journal of Political Economy* 82, no. 1 (1974): 34-55.
[43] Google Scholar. "Lancaster: A new approach to consumer theory - Google Scholar," accessed November 26, 2019 at https://scholar.google.com/scholar?cites=2474203905604306248&as_sdt=2005&sciodt=0,5&hl=en; Google Scholar. "Rosen: Hedonic prices and implicit markets: product... - Google Scholar" accessed November 26, 2019 at https://scholar.google.com/scholar?cites=11460718718858810305&as_sdt=2005&sciodt=0,5&hl=en.

50.   The hedonic regression method uses retail scanner data comprising actual retail sales prices and various product attributes, which are available from market research firms that track actual point-of-sale purchases (e.g., Nielsen, IRI, Spins).[44] These data are available for products in the snack food and bars category and, to the extent that the POS data contains insufficient granularity to distinguish between "All Natural" and "non-GMO" representations on product labels, these data can be supplemented with publicly-available data documented below. I understand that these documents have been requested by subpoena from Nielsen, IRI, and Spins for use in this litigation and that these data include key product attributes such as brand, product type, time and place of purchase, volume (ounces), flavor/scent, form, type of coating, fat content, and various label claims, including "natural."

51.   Detailed data on non-GMO products are available for over 7,700 products in the snack food and bars category from the non-GMO project.[45] Detailed data on products labeled as "All Natural" and "non-GMO" are also available from Mintel Group Ltd.'s Global New Products Database, and the Mintel Group maintains an IRIS database that overlays IRI sales data with labeling claims made on products.[46] Data from the Mintel Group and the non-GMO project are publicly available for purchase and can be used to refine and cross-check attribute designations on products in the snack food and bars category obtained from Nielsen and/or IRI.

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[44] The Nielsen "ScanTrack" data and IRI "Infoscan" data both track actual sales for grocery stores in different states by state and by metropolitan area, which allows the analysis to be limited to calculating the price premium in the appropriate jurisdictions (e.g., all US states, California, Florida, and New York). As previously noted in Section IV.C of this Declaration, there are many different studies by academic and government economists that use data from these sources to estimate the price premium of the "all natural" and "non-GMO" attributes in consumer products.

[45] Non-GMO Project, verified products, accessed November 25, 2019 at https://www.nongmoproject.org/find-non-gmo/verified-products/

[46] Mintel Group Ltd., GNPD database, accessed November 25, 2019 at https://www.mintel.com/global-new-products-database

52.   The characteristics of the products that are included in the analysis depend on the measured characteristics provided in the available data as well as on the potential sources of variation present in the data. Potentially relevant characteristics that commonly appear in Nielsen and IRI data include: (1) indicator variables for the time period (e.g., week, month or year), which control for factors that are constant within a given time period but change over time (e.g., government regulations, economic conditions, seasonal price trends); (2) brand-level indicator variables, which control for characteristics that determine demand for individual brands; and (3) indicator variables for the store or chain where the product is sold, which control for pricing tendencies and product availability across retail stores and chains. These data also include information on the type of packaging, product type, special ingredients, and various label claims, including "natural." These data can be supplemented, as needed, with data from Mintel Group and from consumer groups that track the use of "natural" and "non-GMO" claims on individual product labels, which can be matched with products in the Nielsen and IRI data by Universal Product Code (UPC).

53.   Economic damages from the "All Natural" and "non-GMO" representations in the hedonic regression equation are represented by the Price Premium on these attributes contained in the Products. The hedonic regression approach offers a method to calculate the overcharge to consumers that is due to only to the mislabeling conduct (i.e., the additional value created by use of the natural and non-GMO representations after controlling for other attributes contained in the product).

54.   The hedonic regression approach can be used to separately evaluate the "All Natural" and "non-GMO" claims on the Products. Retail scanner data from IRI or Nielsen is sufficiently rich to allow the hedonic regression model to include interaction terms that capture

20

the value of products jointly labeled as "All Natural" and "non-GMO" as opposed to products

making only one of these representations on the label.

55.   I have considerable experience using retail scanner data from Nielsen and IRI,

both in producing hedonic models for litigation,[47] and in estimating consumer demand and the

value of product attributes for determining economic value in academic studies.[48]

2. *"Conjoint analysis" can be used to value the "All Natural" and "non-GMO" attributes on the Products.*

56.   "Conjoint analysis" is another method that can be used to value a specific

marketing claim on the Products, while controlling for various other product attributes that affect

consumers' willingness to pay. Conjoint analysis is focused on directly measuring consumers'

willingness to pay for the product attribute of interest by eliciting the value of products with and

without the natural and non-GMO representations. Using this method, product quality and brand

effects can be controlled for by explicitly asking survey respondents to consider choice sets with

different combinations of product attributes, including products labeled with the precise

statements used on KIND's Products. The difference in a consumers' willingness to pay for

products with and without the misleading representation effectively isolates consumers'

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[47] *Brown v. Hain Celestial Group, Inc.,* 2014 WL 6483216, at *19 (N.D. Cal. Nov. 18, 2014) (holding that "the proposed damages model controls for other variables, will be run on a universe of known labels, [and] is proposed by a reputable expert.").

[48] Richards, T.J. and Hamilton, S.F., 2006. Rivalry in price and variety among supermarket retailers. *American Journal of Agricultural Economics*, *88*(3), pp.710-726; Richards, T.J., Hamilton, S.F. and Patterson, P.M., 2010. Spatial competition and private labels. *Journal of Agricultural and Resource Economics*, pp.183-208; Richards, T.J., Allender, W.J. and Hamilton, S.F., 2012. Commodity price inflation, retail pass-through and market power. *International Journal of Industrial Organization*, *30*(1), pp.50-57; Richards, T. and Hamilton, S.F., 2012. Network externalities in supermarket retailing. *European Review of Agricultural Economics*, *40*(1), pp.1-22; Richards, T.J., Allender, W.J. and Hamilton, S.F., 2013. Rivalry in price and location by differentiated product manufacturers. *American Journal of Agricultural Economics*, *95*(3), pp.650-668; Richards, T.J. and Hamilton, S.F., 2015. Variety pass-through: An examination of the ready-to-eat breakfast cereal market. *Review of Economics and Statistics*, *97*(1), pp.166-180; Richards, T.J., Hamilton, S.F. and Yonezawa, K., 2017. Variety and the cost of search in supermarket retailing. *Review of Industrial Organization*, *50*(3), pp.263-285; Richards, T.J., Hamilton, S.F. and Yonezawa, K., 2018. Retail market power in a shopping basket model of supermarket competition. *Journal of Retailing*, *94*(3), pp.328-342.

willingness to pay for the attribute (or combination of attributes) of interest, for instance the

value of a product making the statements "All Natural" and "non-GMO" relative to the value of

a product that does not make these representations.

57.   Conjoint analysis confronts survey panelists with various choices of product

attributes, prices, and other alternatives, and asks them either to rank their preferences over

attributes, or to choose the most preferred attribute or combination of attributes. By

systematically varying the attributes of the product and observing how respondents react to the

resulting product profiles, conjoint analysis gathers statistical information about consumer's

willingness to pay for various attributes in the products, including the actual market prices

charged for the products. Statistical methods, typically conducted through regression analysis,

are then applied to the survey responses to calculate attribute value.

58.   Conjoint analysis is founded on rigorous statistical and economic principles and

has a long history of use as a method used to certify Class damages in litigation.[49] Conjoint

analysis is also widely used by economists in academic research to estimate the value of the

attributes introduced on product labels.[50]

59.   Conjoint analysis relies on data generated through the survey process and does not

require existing data from KIND, nor from Nielsen or IRI, to calculate economic damages for the

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[49] See, e.g., *Khoday v. Symantec Corp.*, 2014 WL 1281600, at *10 (D. Minn. March 13, 2014); *Sanchez-Knutson v. Ford Motor Company*, 310 F.R.D. 529, 538-39 (S.D. Fl. 2015); *In re: Lenovo Adware Litigation*, 2016 WL 6277245, at *21 (N.D. Cal. Oct. 27, 2016); *Guido v. L'Oreal, USA, Inc.,* 2014 WL 6603730, at *5, *10-*14 (C.D. Cal. July 24, 2014); *Brown v. Hain Celestial Group, Inc.,* 2014 WL 6483216, at *19 (N.D. Cal. Nov. 18, 2014); Microsoft v. Motorola, Inc., 904 F.Supp.2d 1109, 1119-20 (W.D. Wa. 2012); *In re Scotts EZ Seed Litig.,* 304 F.R.D. 397, 413-15 (S.D.N.Y. 2015); *Dzielak v. Maytag*, 2017 WL 1034197, at *6 (D. NJ. March 17, 2017); *TV Interactive Data Corp. v. Sony Corp.,* 929 F. Supp. 2d 1006, 1022 & n.6 (N.D. Cal. 2013); *Briseno v. ConAgra Foods, Inc.,* 844 F.3d 1121 (9th Cir. 2017); *Fitzhenry-Russell v. Dr Pepper Snapple Group, Inc.,* 2018 WL 3126385 (N.D. Cal. June 26, 2018); *In Re Arris Cable Modem Consumer Litig.*, 2018 WL 3820619, at *25-*31 (N.D. Cal. Aug. 10, 2018); *Hadley v. Kellogg Sales Co.,* 2018 WL 3954587, at *11-*16 (N.D. Cal. Aug. 17, 2018); *Martinelli v. Johnson & Johnson,* 2019 WL 1429653, at *3-4 (E.D. Cal. Mar. 29, 2019)
[50] Green, P.E., Krieger, A.M. and Wind, Y., 2001. Thirty years of conjoint analysis: Reflections and prospects. *Interfaces*, *31*(3_supplement), pp.S56-S73.

Products. The choice options in a conjoint analysis can include price options that coincide with the actual prices that KIND charged for their products, thereby controlling for supply-side factors that influence market outcomes.

60.   I have relied on consumer survey techniques to measure consumers' willingness to pay in markets for natural food products in my own academic research.[51] I have used specialized market research firms to design the sampling frame and survey instrument for the conjoint analysis and will do the same in the event I use data from conjoint analysis to measure the Price Premium on Products.

61.   Conjoint analysis can be used to measure of the price differential attributable to KIND's statements in exactly the form they appear on product labels. Conjoint analysis does not require individualized analyses, or Class-member-specific inquiry. All relevant data needed to complete conjoint analysis is class-wide, common evidence, as are the results of the conjoint analysis.

3. *Class-wide damages are measured as the product of the Price Premium and the sales quantity of the Products.*

62.   After the value of the "All Natural" and "non-GMO" representations are calculated using one of the methods described in Section V.B.1 - Section V.B.2 above, economic damages can be measured as the product of the Price Premium and the total units sold of the Products in the United States during the Proposed Class Period, as well as for the California, Florida and New York Classes, as litigation shall require.

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[51] For example, see: Hamilton, Stephen, David Sunding, and David Zilberman. "Public goods and the value of product quality regulations: The case of food safety," *Journal of Public Economics* 87 (2003): 799-817.

B.   *There is a valid and accurate methodology to calculate KIND's unjust gains from sales of the mislabeled products.*

63.   Should the Court decide that a measure of damages other than Price Premium is appropriate in this case, it is possible to calculate the amount of revenue and profit KIND wrongfully gained from sales of the mislabeled products. This method uses financial metrics from standard accounting statements (e.g., KIND's profit and loss statements) for the mislabeled products.

64.   For the purposes of calculating restitutional disgorgement, there are at least three relevant financial metrics customarily presented in financial statements:

- First, "net sales revenue" represents the sales revenue obtained by KIND, after deducting adjustments such as returns, rebates, or sales discounts. Use of this metric is consistent with the notion that KIND should be disgorged of any net sales revenues obtained through selling falsely labeled products.

- Second, "gross profit" is calculated as KIND's net sales revenue minus the "cost of goods sold," which incorporates the costs of materials and direct labor used to create the products. This metric is consistent with the notion that KIND should be disgorged of sales revenues net of production costs.

- Third, "net profit before tax" represents the profits retained by KIND, after deducting for production costs, marketing expenses, and allocated general & administrative expenses. This metric is consistent with the notion that that KIND should be disgorged of sales revenues net of production costs, marketing costs, and allocated general and administrative costs.

VI.   CONCLUSION

65.   Based on the analysis presented in this Declaration, I conclude that there are widely accepted and feasible methodologies for calculating the damages alleged in this case on a class-wide basis.

66.   My opinion is based upon the documents, data, and the information that is currently available to me. I reserve the right to update or alter my opinions if new information subsequently becomes available to me. Tables, figures, and various demonstrative aids may include not only those appearing in this Declaration, but other illustrations based upon the information cited herein.

67.   I declare under penalty of the perjury laws of the United States that the foregoing is true and correct. Executed on January 16, 2020.

Stephen F. Hamilton, Ph.D.